

**WE CLAIM:**

1. A disposable garment comprising:  
a front waist region, a back waist region, and a crotch region extending between the waist regions,  
a first side panel extending from the front waist region;  
a second side panel extending from the back waist region;  
a side seam connecting an edge portion of the first side panel to an edge portion of the second side panel, the first side panel offset with respect to the second side panel,  
wherein the side seam comprises a primary bond and a secondary bond.
2. The disposable garment of Claim 1 wherein the primary bond connects an inner surface of the first side panel to an inner surface of the second side panel.
3. The disposable garment of Claim 1 wherein the primary bond connects an outer surface of the first side panel to an outer surface of the second side panel.

4. The disposable garment of Claim 1 wherein the secondary bond connects an outer surface of the second side panel to an inner surface of the first side panel.

5. The disposable garment of Claim 1 wherein the secondary bond connects an inner surface of the second side panel to an inner surface of the first side panel.

6. The disposable garment of Claim 1 wherein the secondary bond connects an outer surface of the second side panel to an outer surface of the first side panel.

7. The disposable garment of Claim 1 wherein the side seam has a width of less than about 30 mm.

8. The disposable garment of Claim 1 wherein the side seam has a width of about 2 mm to about 8 mm.

9. The disposable garment of Claim 1 wherein the primary bond has a width of less than about 30 mm.

10. The disposable garment of Claim 1 wherein the primary bond has a width of about 2 mm to about 8 mm.

11. The disposable garment of Claim 1 wherein the secondary bond has a width of less than about 30 mm.

12. The disposable garment of Claim 1 wherein the secondary bond has a width of about 2 mm to about 8 mm.

13. A disposable garment, comprising:

a chassis comprising a front side panel and a back side panel, and defining a waist opening and first and second leg openings;

a first side seam extending from the waist opening to the first leg opening and connecting the front side panel and the back side panel, the front side panel laterally offset with respect to back side panel at the first side seam; and

a second side seam extending from the waist opening to the second leg opening and connecting the front panel and the back panel, the front side panel offset with respect to back side panel at the second side seam,

wherein each side seam comprises a primary bond and a secondary bond.

14. The disposable garment of Claim 13 wherein an inner surface of an edge portion of the front side panel is bonded to an inner surface of an edge portion of the back side panel.

15. The disposable garment of Claim 13 wherein an inner surface of an edge portion of the front side panel is bonded to an outer surface of an edge portion of the back side panel.

16. The disposable garment of Claim 13 wherein a portion of an inner surface of the front side panel is bonded to a portion of an outer surface of the back side panel.

17. A disposable garment comprising:

- a front waist region, a back waist region, and a crotch region extending between the waist regions,
- a first side panel extending from the front waist region;
- a second side panel extending from the back waist region;
- a concealed side seam connecting an edge portion of the first side panel to an edge portion of the second side panel.

18. A method for forming a tacked down offset butt side seam comprising:

forming an offset portion by connecting an inner surface of a front side panel to an inner surface of a back side panel using a primary bond, wherein a lateral length of one of the front side panel and back side panel is greater than a lateral length of the other side panel; and

bonding the offset portion to an outer surface of one of the front side panel and the back side panel using a secondary bond.

19. The method of Claim 18 wherein the inner surface of the front side panel forming the offset portion is bonded to the outer surface of the back side panel, and the lateral length of the front side panel is greater than the lateral length of the back side panel to form the offset portion.

20. The method of Claim 18 wherein the inner surface of the back side panel forming the offset portion is bonded to the outer surface of the front side panel, and the lateral length of the back side panel is greater than the lateral length of the front side panel to form the offset portion.

21. The method of Claim 18 wherein the offset portion has a width of about 2 mm to about 30 mm.

22. The method of Claim 18 wherein the offset portion has a width of about 3 mm to about 8 mm.

23. The method of Claim 18 wherein the offset portion extends along an entire length of the offset butt side seam between a waist opening and a leg opening.

24. The method of Claim 18 wherein the inner surface of the front side panel is connected to the inner surface of the back side panel in a close proximity to an outer edge of each side panel.

25. The method of Claim 18 wherein a portion of one of the front side panel and the back side panel is cut to form the offset portion.

26. The method of Claim 18 wherein the primary bond and the secondary bond each has a width of about 2 mm to about 10 mm.

27. The method of Claim 18 wherein an outward edge of the primary bond is about 0 mm to about 15 mm from a distal edge of one of the front side panel and the back side panel.

Figure 1 consists of 12 histograms arranged in a single column. Each histogram represents the frequency distribution of the number of non-zero elements in the vector  $x$  for a specific value of  $n$ . The x-axis for all histograms is 'Number of non-zero elements in  $x$ ' with major ticks at 0, 20, 40, 60, 80, 100, and 120. The y-axis is 'Frequency' with major ticks at 0, 20, 40, 60, 80, and 100. The histograms are labeled with  $n$  values: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100, 110, and 120. As  $n$  increases, the distribution of non-zero elements shifts to the right, and the peak frequency decreases.

bonding the overlapped portion using a primary bond;

folding the back edge portion along a length of an outward edge of the primary bond wherein an outer surface of the back side panel contacts an outer surface of the front side panel;

bonding at least a portion of the folded back edge portion and at least a portion of the folded front edge portion using a secondary bond.

30. The method of Claim 28 wherein a distance between a distal edge of the front side panel and the outward edge of the primary bond is about 0 mm to about 12 mm.

31. The method of Claim 28 wherein a width of the primary bond is less than the width of the overlapped portion.

32. The method of Claim 28 wherein a width of the secondary bond is about equal to a width of the primary bond.

33. The method of Claim 28 wherein the overlapped portion extends along an entire length of the folded lap side seam between a waist opening and a leg opening.